



RESPONSE UNDER 37 CFR 1.116 EXPEDITED PROCEDURE EXAMINING GROUP 1765

PATENT

Attorney Docket No. 98124x205487

Examiner: Lynette T. Umez-Eronini

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit: 1765

In re Application of:

Wang et al.

Application No. 09/636,161

Filed: August 10, 2000

For:

POLISHING SYSTEM AND METHOD

OF ITS USE

RESPONSE TO OFFICE ACTION

RECEIVED

AUG 2 2 2002

TC 1700

Box AF Washington, D.C. 20231

Commissioner for Patents

Dear Sir:

In response to the Office Action dated June 18, 2002, please enter the following amendments and consider the following remarks.

AMENDMENTS

IN THE CLAIMS:

Please cancel claims 7, 10-15, and 36-39 without prejudice or disclaimer of the subject matter contained therein.

Please replace the indicated claims as follows:

1. (Amended) A system for polishing one or more layers of a multi-layer substrate that includes a first metal layer and a second layer comprising (i) a liquid carrier, (ii) at least one oxidizing agent, (iii) at least one polishing additive that increases the rate at which the system polishes at least one layer of the substrate, wherein the polishing additive is selected from the group consisting of pyrophosphates, condensed phosphates, diphosphonic acids, tri-phosphonic acids, poly-phosphonic acids, phosphonoacetic acids and salts thereof, aminoethylethanolamine, polyethyleneimine, amino alcohols, amides, imines, imino acids, nitriles, nitros, thioesters, thioethers, carbothiolic acids, carbothionic acids, thiocarboxylic

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acids, thiosalicylic acids, and mixtures thereof, (iv) at least one passivation film-forming agent, and (v) a polishing pad and/or an abrasive.

- 8. (Amended) The system of claim 3, wherein at least one oxidizing agent is a peroxide, and at least one passivation film forming agent comprises one or more 5-6 member heterocyclic nitrogen-containing rings.
- 9. (Amended) The system of claim 3, wherein at least one polishing additive is selected from the group consisting of ethylene di-phosphonic acid, 1-hydroxyethylidene-1,1-di-phosphonic acid, and a mixture thereof.
- (3
- 16. (Amended) The system of claim 9, wherein at least one oxidizing agent is a peroxide, and at least one passivation film forming agent comprises one or more 5-6 member heterocyclic nitrogen-containing rings.
- (4
- 24. (Amended) The system of claim 3, wherein at least one passivation film-forming agent is selected from the group consisting of 1,2,3-triazole, 1,2,4-triazole, benzotriazole, benzotriazole, benzothiazole, and hydroxy-, amino-, imino-, carboxy-, mercapto-, nitro-, urea-, thiourea-, or alkyl-substituted derivatives thereof.

REMARKS

Information Disclosure Statement

Applicants have received a copy of the Examiner-initialed Form PTO-1449 identifying references AQ-AV, but noted that reference AS has not been initialed. Applicants respectfully request confirmation of the consideration of reference AS by return copy of the Examiner-initialed Form PTO-1449 showing the Examiner's initials next to the identification of reference AS.

The Pending Claims

Claims 1-6, 8, 9, 16-27, and 32-35 are currently pending. Claims 1-6, 8, 9, 16-27, and 32-35 are directed to a system for polishing one or more layers of a multi-layer substrate comprising (i) a liquid carrier, (ii) at least one oxidizing agent, (iii) at least one polishing additive that increases the rate at which the system polishes at least one layer of the substrate, (iv) at least one passivation film-forming agent, and (v) a polishing pad and/or an abrasive.